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# Intergroup Dimensions of Internet

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Postmes, T., & Baym, N. (2005). Intergroup dimensions of Internet. In J. Harwood & H. Giles (Eds.), *Intergroup communication: Multiple perspectives* (pp. 213-238). New York: Peter Lang Publishers.

Intergroup boundaries of nationality, race, language, and ideology are called into question whenever new opportunities for intergroup contact arise. The Internet questions these boundaries like no other communication medium before it, because of its capacity to serve any (mediated) communication needs from interpersonal to mass broadcasting, because of its worldwide reach, and because of its access within and across a wide variety of groups and cultures (Hoffman & Novak, 1998; Katz, Rice, & Aspden, 2001).

There are indications that this gradually alters the fabric of society and institutions (Castells, 1996), and the Internet has undoubtedly transformed the nature of intergroup contact in three regards. First, it facilitates intergroup communication, offering the potential of reducing prejudicial attitudes (Pettigrew, 1998). Second, it facilitates intragroup communication, pivotal to the development of intragroup consensus, stereotypes of in- and outgroups, and pathways to collective action (Haslam, 1997; Postmes, Haslam, & Swaab, in preparation). Third, the Internet provides new paradigms for intergroup conflict and cooperation itself, for symbolic and non-physical confrontations and collective action (Postmes & Brunsting, 2002). A major factor moderating the influence of these factors is that communications over the Internet can be relatively anonymous, and that users tend to be isolated from each other.

In theory, the Internet may shift power relations between groups, with possibilities for emancipation and mobilization (Herring, 1996; Spears & Lea, 1994; Zuboff, 1988). Indeed, the Internet spawned a wide variety of emancipatory integrationist initiatives (see e.g. www.idealist.org). Less positively, the Internet is a showcase of intergroup prejudices, and may facilitate oppression and inequity (Leets, 2001; Zickmund, 1997), including racism, sexism, and classism (e.g., the Hate Directory, www.bcpl.net/~rfrankli/hatedir.htm), and more subtle cultural prejudices. The Internet is a forum for a range of intergroup (collective) actions under the umbrella of anti-corporatism and anti-globalization, and even online extensions of "real" wars (e.g., the virtual intifadah). These collective actions can take forms such as defacements, virtual blockades, sit-ins, denial of service attacks, or site hijacking. Not only do these developments have intrinsic importance and interest, but they also provide inroads to studying novel or traditionally covert aspects and forms of intergroup behavior.

However, despite intense research into the social effects of the Internet, we know little about its consequences for intergroup relations. One reason for this is a lack of systematic empirical research on this topic. A second reason, and likely cause, is the almost complete neglect of intergroup relations in theories of Computer-Mediated Communication (CMC). This chapter argues that this neglect is unfortunate because it ignores an important dimension

of online life, and hinders our understanding of CMC's interpersonal and intragroup effects. The first part of the chapter classifies perspectives on social influence of technological mediation in meta-theoretical terms. The second part then identifies the limitations of these approaches, and traces these to the metatheories of self and identity which they are grounded in. The third part explores how a social identity approach can inform our understanding of the implications of technological mediation for intergroup relations.

## *Theoretical perspectives*

In the past 30 years, various theories have considered communication technology's social consequences. A general taxonomy taking meta-theoretical assumptions of different approaches into account may distinguish two dimensions (Spears, Postmes, Wolbert, Lea, & Rogers, 2000). The *first* is to see technological change as positive or negative in general, providing "utopian" and "dystopian" perspectives on technology (Kling, 1996; Spears & Lea, 1994). The *second dimension* is whether social change is attributed to characteristics of technology (technological determinism), or whether technology and technology use are driven by social factors (social determinism). Crossing these two dimensions results in a fourfold taxonomy of approaches, displayed in Figure 1. In order to illustrate each of the quadrants, we briefly outline some important perspectives.

### *Theories of technological determinism*

On the left hand side of Figure 1 one finds some early theories about the social impact of communication technology, developed in the *protodigital era* when audio-conferencing first became available, and computer-mediated communication appeared on the horizon. These theories have been reviewed extensively elsewhere (Baym, 2002; Postmes & Lea, 2000; Spears & Lea, 1992; Spears, Lea, & Postmes, 2001), so we can be brief here. They tend to predict that medium characteristics have certain static effects on individuals, usually to make their interaction less "social." The "social" consequences here are essentially restricted to characteristics of positive interpersonal relationships (e.g., friendliness, sociability and warmth). Because the Internet lacks the nonverbal means by which such feelings tend to be conveyed in face-to-face interaction, the idea is that the Internet is therefore socially impoverished (e.g., Cummings, Butler, & Kraut, 2002; Kraut et al., 1998). Theories following this logic are, among others, Reduced Social Cues theory (Kiesler, Siegel, & McGuire, 1984) and Media Richness theory (Daft & Lengel, 1984). These perspectives usually paint a bleak picture of the social consequences of the Internet (i.e. they are dystopian). More recently, the social information processing model (Walther, 1992) also emphasized CMCs limitations in terms of *speed* of relational development.

However, in keeping with utopian tradition of viewing science and technology as progress (Segal, 1986), in some cases social impoverishment was identified as a blessing. A good example of this is the literature on group decision support systems. Here social influence is seen as an obstacle to effective group decision making and performance (cf., Buys, 1978). If technological systems remove the capacity for sociability, this will therefore improve group performance (Jessup, Connolly, & Tansik, 1990; Valacich, Jessup, Dennis, & Nunamaker, 1992). Similarly, the inability to see gender, race, or other social cues can render them irrelevant, undermining status and power differentials and fostering equality in online groups (e.g., Dubrovsky, Kiesler, & Sethna, 1991). This idea can be extended to intergroup relations more generally, where the Internet could exert a democratizing influence through obscuring traditional group distinctions and empowerment (cf. Bakardjieva, 2002; Mantovani, 1994).

Across these distinct approaches, the underlying assumption is invariably that *social* effects are due to technology reducing the *individual's* capacity to encode or decode social signals (see also Haythornthwaite, 2002). Perhaps due to this inherent individualism, the empirical and theoretical concerns of these theories have tended to be interpersonal (and to a lesser extent intragroup) processes, with little attention for intergroup relations. Nonetheless, the implications of these approaches for intergroup relations are straightforward. Where social influences are seen as obstacles for intergroup relations these theories are positive: Technology could be used to reduce stereotyping and prejudice that is triggered by direct face-to-face contact, and it could increase equality (Dubrovsky et al., 1991). Conversely, technology's influence is negative where social influence would benefit intergroup relations (e.g., where an absence of social regulation would encourage "flaming", cf. Douglas & McGarty, 2001; Lea, O'Shea, Fung, & Spears, 1992; O'Sullivan & Flanagin, 2003).

The main problem of these determinist theories is the huge variety of social effects that communication technologies have (Baym, 2002). The Internet is hardly a Mecca of equality and tolerance (Bakardjieva, 2002; Douglas & McGarty, 2001; Mantovani, 1994), although there are pockets where such goals are pursued with vigour (Brunsting & Postmes, 2002; Postmes & Brunsting, 2002). Likewise, communication technologies have hardly made the workplace more egalitarian and open across the board (Iacono & Kling, 2001; Micklethwait & Wooldridge, 1996; Zuboff, 1988). Also in field studies of group decision support, adverse effects have been noted especially in international settings (Espinosa, Cummings, Wilson, & Pearce, 2003; Lyytinen, Maaranen, & Knuuttila, 1993). Finally, descriptive studies of the Internet use have declared that it leads to reduced social

involvement and poorer psychological well-being (Kraut et al., 1998) only to report reverse effects a few years later (Kraut et al., 2002).

Even in the more controlled environments of lab experiments the contradictory effects of communication technology abound. With regard to intergroup relations, for example, Walther failed to find support for SIP in a study of cross-national student collaboration over CMC (Walther, 1997). Studies of multicultural and multinational GDSS sessions have observed no major beneficial effects of mediation (Daily & Steiner, 1998). Studies of online gender differences also produce more complex results than initially envisaged (Flanagin, Tiyaamornwong, O'Connor, & Seibold, 2002; Jackson, Ervin, Gardner, & Schmitt, 2001; Thomson & Murachver, 2001).

In response to this diversity of effects, many theorists have dismissed technological determinism. This has fuelled an equally one-sided counter-movement, which assumes that technologies are principally determined by their social uses.

*Social Determinism*

The original opposition to technological determinism was inspired by social constructionists' argument that social practices and discourses shape social reality (Berger & Luckman, 1966). From this perspective, social practices within groups and organizations could be a major determinant of technology use (Baym, 2002; Fulk, 1993; Haythornthwaite, 2002), and social context and technology could mutually influence the "adaptive structuration" of technology (Contractor & Seibold, 1993; Orlikowski, Yates, Okamura, & Fujimoto, 1995; Poole & DeSanctis, 1990).

Despite their theoretical sophistication, theories of adaptive structuration and constructionism have been critiqued for remaining rather indeterminate and vague (Baym, 1995; Rice, 1993), and this is arguably their very purpose (Gergen, 1985). Moreover, they de-emphasize the extent to which technology restrains practice. Even when they acknowledge the importance of technological constraints, as in adaptive structuration theory, they consistently fail to specify *how* technology limits the extent to which users may construct their own uses of technology, in contrast to the straightforward and strong role of social norms and internal systems of the group. Thereby, these theories ultimately convey the message that social factors are the key to understanding technology use, and in that sense that they may be termed social determinist (Postmes, Spears, & Lea, 2000; Spears et al., 2000).

The individual is granted rather more agency and control in postmodern approaches arguing that the Internet offers a realm for reinventing identity (Myers, 1987; Poster, 1990; Turkle, 1995). However, this perspective suffers from the (opposite) problem of sliding into

relativism and even voluntarism (i.e., indeterminate individualism). For example, postmodern perspectives have suggested that the Internet would be "neutral"—a blank social space users are free to decorate as they choose. This has obvious implications for intergroup relations, creating a somewhat utopian perspective that the social identities inscribed to stigmatized and powerless groups offline would become irrelevant online, ultimately perhaps even erasing those divisions in offline contexts (Haraway, 1990; see also McKenna & Bargh, 1998; McKenna & Bargh, 2000; Turkle, 1996).

The prime problem is that most people value their (social) identities, warts and all. Research examining the use of identity online confirms that people generally present and develop their "true" selves online. Rutter and Smith (1999) studied over 17,000 messages in an online newsgroup, and found that the use of fantasy selves was rare (Rutter & Smith, 1999, p. 11). Rather than inventing identities online, people appear most concerned with using the Internet to extend and enrich their "real" (i.e., offline social and individual) selves, questioning the distinction between virtual and real (see also Bargh, McKenna, & Fitzsimons, 2002).

More generally, social determinist approaches also have tended to ignore the intergroup dimension of the Internet—being overly concerned with predicting consequences of technology for individual users and for groups of decision makers. As we shall see shortly, however, intergroup communications introduce a wholly different set of constraints, which, for example, seem to make norm formation in online communities less voluntaristic than social constructivists would tend to argue (Postmes et al., 2000).

In sum, reacting against the shortcomings of technological determinism, social determinist theories have sometimes embraced "anything goes" relativism. Although this might be a reasonable response given that technological determinist research clearly demonstrated that effects of technology are varied, it ignores that technology is *not* neutral. Whatever its effects, technological mediation influences the content and consequences of communication. Moreover, where technological determinism has had problems explaining the variability of these effects, social determinism faces the opposite conundrum of explaining *invariances* of technological innovation. At the individual and interpersonal level, technologies transform the properties and modes of interaction. At the group level, technology such as GDSS has relatively predictable effects on certain aspects of group processes (Benbasat & Lim, 1993; McLeod, 1992; Postmes & Lea, 2000; but see Chun & Park, 1998, for a different approach). At the macrosocial level, technology has not revolutionized social structures, society, or work on any large scale but has typically kept

existing social orders intact (Iacono & Kling, 2001). And with regard to the topic of this volume, the Internet by and large has not changed existing intergroup relations, but has provided a new forum for the perpetuation and accentuation of familiar forms of racism and sexism (Douglas & McGarty, 2001; Nakamura, 2002; Postmes, Spears, & Lea, 1998).

### *Putting groups back into the frame*

So far, we have discussed theories whose primary concern is with the "internal system of the group", that is with interpersonal and intragroup processes (Baym, 2002). This neglect of the (inter)group dimensions in theories of mediated communication has had unfortunate consequences. It has led to a state of affairs where intergroup distinctions are reduced to interpersonal properties, for example where status is considered a personal attribute (Dubrovsky et al., 1991; Sproull & Kiesler, 1991) or an intragroup distinction (Espinosa et al., 2003; Nunamaker, Briggs, Mittleman, Vogel, & Balthazard, 1997), ignoring the possibility that status may transform interpersonal and intragroup situations into an intergroup one (e.g., as in the white-blue collar distinction). It may also be felt in studies of cross-national workgroups focusing on relational and interpersonal development rather than intergroup dynamics (Walther, 1997; Walther, Slovacek, & Tidwell, 2001).

There are limitations to such interpersonal analyses where social behavior is informed by factors which are not reducible to individual or interpersonal influences, but which are best understood as characteristics of the group as an entity—i.e., social norms or social identities (e.g., Baym, 1995; Postmes et al., 1998). These problems are apparent in both technological and social determinist perspectives, although in slightly different ways for each.

#### *Technological determinism and the group*

In the case of technological determinist theories, the emphasis on interpersonal and intragroup processes is grounded in analyses of how mediation influences the *individual's cognitive processing* of incoming information. The problem here is that characteristics of the medium may not just influence how messages and cues are perceived and interpreted, but may also influence relations to ingroup members and outgroup members for reasons unrelated to the cognitive processing of messages or cues per se, and to slightly different effects (Lea & Spears, 1991, 1995; Spears & Lea, 1992). In intergroup interactions, for example, a greater sense of distance and anonymity may exacerbate the operation of stereotypes and prejudices—influencing perceptions and behaviors *independently* of the actual interactions (Spears, Lea, & Lee, 1990).

The problems for technological determinism can be illustrated by the "equalization phenomenon". This describes the idea that status differences would be less influential when group members are anonymous, as is sometimes the case in CMC. Indeed, some research has shown that group members participate more equally when they are anonymous (Dubrovsky et al., 1991). Paradoxically, however, very similar studies have found opposite effects that status persist despite anonymity (Hollingshead, 1996; Scott & Easton, 1996) or even that anonymity amplifies status effects (Weisband, 1994; Weisband, Schneider, & Connolly, 1995).

The key to understanding these contradictory results is that anonymity does not operate as a "switch" to turn status and other aspects of identity "on or off" (cf. Valacich, Dennis, & Nunamaker, 1991, p. 344)—rather, it has multiple effects on multiple levels of social abstraction (Tanis, 2003). It is important to differentiate multiple aspects of status—status can be a (visible) personal attribute, but it is also a relevant intergroup distinction that ties in with people's *social identity* as either high or low status group members. Where signs of status may be rendered invisible by medium characteristics, status may persist as a relevant factor in the interaction irrespective of its visibility simply by virtue of its *known* existence and *social relevance,* and by its personal relevance as internalized part of one's social identity (Spears & Lea, 1994). Furthermore, anonymity may be used as a means to (strategically) manifest valued stigmatized social identities (McKenna & Bargh, 1998), or even to display highly stereotyped racial or gendered identities, as when men assume identities as outrageously sexy women or whites assume identities as rastafarian or gangsta black men. In each of these cases, anonymity becomes a resource for self-stereotyping, or the stereotypical treatment of others, in ways that alter the balance of power between the groups involved (Nakamura, 2002).

*Social determinism and intergroup context*

Neglecting intergroup processes has presented social determinism with a rather different set of problems. In general, these stem from failures to define the "social context" to which it attributes such prominence (Lea, O'Shea, & Fung, 1995). Although social determinism devotes considerable attention to the group, it fails to consider what the group *is* in any systematic and theoretical analysis of how it relates to its wider social context. Once again, a key factor is that the intergroup dimension is ignored, but in contrast to technological determinism the resulting problem is one of indeterminism. In particular, without considering the intergroup consequences of group process, it becomes difficult if not impossible to predict the form and direction that social influence may take (Turner, 1991).

One reason for this is that in the complete absence of any specific intergroup context, the processes of norm formation (social construction, structuration, or identity formation) are likely to be dictated by factors of an individual and interpersonal nature, such as group composition (Postmes et al., in preparation). Factors involved here are so diverse that any systematic theoretical analysis is likely to end with oblique and inconsequential references to the importance of taking into account characteristics of the individual, experience and history of the group, without being able to specify in what way these will influence norm formation (DeSanctis & Poole, 1994; Fulk, Schmitz, & Steinfield, 1990).

This problem is compounded by the fact that, in intragroup contexts, the social demands to behave normatively are usually quite mild. It is when groups are engaged in some intergroup dynamic that normative behavior becomes truly important, and deviance becomes punishable. In the Second World War, for example, severe punishments and hefty fines were administered for relatively mild offenses such as over-charging and petty theft (Thomas, 2003). Indeed, it has been argued that situations without a clear intergroup dynamic are perhaps not "group" contexts at all, but are better understood as interpersonal in nature (Tajfel, 1978; Turner, 1982).

Thus, when theorists argue that online communities are best characterized as networks of interpersonal relationships or ties (Haythornthwaite, 2002; Wellman et al., 1996) they may inadvertently create a problem of removing essential elements of group behavior from their analysis. Interpersonal ties are not always *all* that matter. In many online contexts, as in offline ones, group processes can also occur at a different level of abstraction, such as when groups have a shared fate, or experience intergroup conflict. Individual behavior in such cases is motivated not just by individual calculations, but also by group-level considerations, such as a desire to express social identity and maintain or create a perceived social reality of “us” and “them” through self-stereotyping (Tajfel, 1978). Interpersonal analyses fall well short of understanding what motivates actions in the many contexts which are explicitly intergroup in nature (i.e., when issues of race, class, gender, or any other social identity come into play). They also prevent us from considering that individuals’ actions may be shaped by group-level processes even when the group under consideration would not appear to be in conflict with another, and when no common social identity can easily be identified.

As we shall explore in the next section, the engagement with other groups severely restricts the individual's freedom to engage in identity play. Users usually are far from "free" to construct and structure technology almost boundlessly. This is only possible in unthreatened intragroup contexts which afford a liberty which does not exist to the same

extent in intergroup contexts. Thus, the indeterminism and voluntarism of social determinist perspectives can be overcome by broadening our perspective on the wider social context within which a group operates. It is the exclusive focus on intragroup and interpersonal contexts which gives rise to the conclusion that "it depends".

*Putting group and individual back together: Reconstructing identity*

The argument above suggests that technological and social determinist approaches differ in their underlying assumptions about who the "user" of technology is. Technological determinists approach the user as a psychologist would—as an individual with cognitive capacities geared to processing input and generating output. Most social determinists see users more as sociologists would—as a network or structure of actors in which individuals are considered mainly as products of social structure. The shortcomings of each approach become apparent when examining these conceptions of "group" and "individual" more closely, and when challenging the dualism that is assumed to exist between individual and structural factors (cf. Giddens, 1984; Turner & Oakes, 1986).

An alternative approach to studying effects of mediated communication begins with the realization that both individual and structural factors (comprising characteristics of technology as well as wider social contexts) are essential to understanding the coordinated human activity of mediated communication. In order to overcome the dualism, the social identity approach postulates that the social is not external to the self, but that it is internalized through a *social identity* (Haslam, 2001; Tajfel & Turner, 1979; Turner, 1985, 1999). These social identities are not merely individual conceptions of a group, social category, or organization. They are —to some extent at least— *socially shared* conceptions of what the defining features and boundaries of these structures are. This definition implies that, although social identities are represented in individual cognition, they are simultaneously properties of the group itself because they could not exist without some degree of consensus among those who share this identity. Between the individual and the social there is reciprocal interaction; to ask which is cause and which effect is futile.

Social identities may be derived from common perspectives on group history and a sense of future direction, but importantly they are formed to a large extent through comparison and differentiation from relevant outgroups (Oakes, Haslam, & Turner, 1994). This can occur online. In their analysis of the Internet in Trinidad, for example, Miller and Slater (2000) have shown that Trinidadians' social identity is amplified by the discovery that most of their interlocutors, especially North Americans, do not know where or even what Trinidad is. Also important for online behavior is that social identities incorporate group

*norms*—that is, a group-specific set of conventions, rules and possible sanctions. A social identity (and the norms associated with it) may shape individual thought and action through the twin processes of self-categorization and social identification. The categorization of oneself as a member of a social group is in part dependent on the salience of categories, and this may be aroused by specific features of the social context, and (importantly) is not dependent on the *actual presence* of other members of the group (McGarty, 1999; Oakes, 1987).

Social identification goes beyond the cognitive knowledge of being a group member: it describes the affective consequences of (aspirant) group membership. Thus strong identification with a certain social group increases the likelihood that the group's social identity is self-defining. Both processes of categorization and identification – the first tending to be more situationally and contextually determined, the latter more enduring and long-term – enhance the likelihood that individuals will come to define themselves in terms of a certain social identity (Haslam, 2001). If this is the case, then the norms and properties that are commonly ascribed to the social group become internalized; they become subjectively interchangeable with personal norms, influencing thought and guiding action.

This social identity approach provides the ingredients for a re-analysis of some of the contradictory effects observed in studies of technology adopting a technological determinist perspective (Spears & Lea, 1992). This perspective (formalized in the Social Identity model of Deindividuation Effects, or SIDE) argues for a distinction between cognitive and strategic effects of communication media. Cognitively, different media may make personal and social attributes more or less visible, and thereby influence the relative importance of (inter)personal and (inter)group differences in users' perceptions and in group processes more generally (Reicher, Spears, & Postmes, 1995; Spears & Lea, 1992). In addition, users and groups can seize upon characteristics of media such as anonymity as a (strategic) instrument in making intergroup challenges and changes more or less feasible (Postmes & Brunsting, 2002; Reicher, 2001; Spears & Lea, 1994; Spears, Lea, Corneliussen, Postmes, & Ter Haar, 2002) and to influence one's self-presentation towards the ingroup (Barreto & Ellemers, 2000; Douglas & McGarty, 2002).

Thus, according to SIDE, technology neither has one specific effect on how messages are processed, nor does it have no effect whatsoever (in the sense of being neutral). Rather, SIDE argues that technology may have a variety of effects, and that this variability is at least partially explained by the specific aspects of identity (personal or social) that are involved in and invoked through its usage. Where anonymity may indeed serve to make person

perceptions *less* articulate and refined (thereby potentially decreasing a sense of "presence") it may thereby render the underlying social dimensions *more* visible, in the same way that ceasing to treat a group as individuals named "Rose, Emma, and Iris" may enhance the likelihood of seeing them as a group of women (Tanis, 2003).

To illustrate this point, Tanis and Postmes (2003) conducted three studies examining online impression formation. These studies showed on the one hand that individual identifiability has straightforward and considerable effects on impression formation. When targets were individuated by means of portrait pictures or short biographies, they were perceived more distinctly, and evaluated more positively. Conversely, anonymous targets were not perceived as positively, nor were person perceptions as well developed. Interestingly, however, this lack of individuating capacity resulted in a proportionally greater reliance on group memberships when it came to choosing partners for future collaboration: Ingroup others were perceived as considerably more attractive collaborators, despite an equally negative and unrefined person perception. In other words, in the absence of individuating information, the social identity of targets and perceiver becomes more relevant (see also Sassenberg & Postmes, 2002).

Such effects of individual identifiability are not just restricted to the cognitive realm of salience of individual or social identity. Importantly, there are also strategic consequences of identifiability: characteristics of technology such as anonymity and physical isolation may provide power and opportunity to oppose and counter a particular outgroup from a safe distance (Postmes & Brunsting, 2002; Reicher et al., 1995; Spears & Lea, 1994).

These strategic effects of anonymity were illustrated in two recent studies examining the prediction that CMC can provide channels of social support fostering resistance (Spears et al., 2002). In Study 1, the availability of CMC provided students with the means to resist authority. Specifically, when CMC was available as a means of intragroup communication, students felt empowered to express opinions that were normative for their group but punishable by the outgroup (faculty). In Study 2, a direct manipulation of the amount of perceived social support within CMC led to an increased willingness to express normative attitudes against outgroup interests. Thus, when students perceived that others would support them via CMC, they were more likely to endorse punishable statements in the face of potential outgroup punishment.

Yet another study has examined the potential for the Internet to support collective action (Brunsting & Postmes, 2002). A survey examining actual and intended protest-related behaviors among different groups of environmental activists and non-activist control groups

showed that the Internet plays an increasingly central role in collective action efforts, in particular in its use as a mass communication device for mobilization. Moreover, the Internet was found to facilitate movements in their efforts to involve peripheral group members and attract new members. Together, these studies reveal the importance of CMC as a medium for communicating and coordinating the social support central to collective action (see McCaughey & Ayers, 2003, for other work on social activism and the Internet).

Going beyond these effects of technology on aspects of identity, however, there are also clear reasons why intergroup contexts should be taken into account as factors that influence the processes with which social determinists are primarily concerned: those of construction of social norms and structuration. There are three reasons why intergroup contexts restrict users' freedom to do as they please.

The first reason is that an intergroup context transforms the interaction from an interpersonal one to an intergroup context (Tajfel, 1978; Turner, 1985). For instance, Miller and Slater (2000), report that Trinidadians' social identity is made so salient by the inherently outgroup nature of the Internet that they even fill their personal homepages with links to national Trinidadian sites. This not only has effects on how we present the self, but also on how we perceive the self in relation to others. The intergroup context triggers an (implicit) social comparison transforming our perceived relationship to others from an unstructured and undifferentiated mass of stronger and weaker "links" into a clearly structured perception of "us" and "them." The consequence is that personal identity and its idiosyncratic needs and motives are pushed to the background. Instead, different aspects of self become relevant. Prominent among these is social identity—that aspect of self which is derived from a particular social group membership (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). The salience of social identity has marked consequences for intragroup relations, for example in terms of attraction (shifting from inter-personal to group-based, Hogg, 1992) or in terms of social cognition and social perceptions (these become homogenized and consensualized, leading to shared cognition, Haslam, 1997; Postmes et al., in preparation).

The second reason is that intergroup contexts activate stereotyped conceptions of in- and outgroup (Oakes et al., 1994; Turner, 1985). These stereotypes influence our relations with others, making us more susceptible to prejudice. However, they also influence our perceptions of ourselves, in that they foster self-stereotyping in thought and action (Spears, Doosje, & Ellemers, 1997; Turner et al., 1987). Thus, merely activating gender stereotypes has been shown to affect the use of technology: women tend to self-stereotype and perceive themselves as technologically incompetent when attention is drawn to their femaleness and

the stereotypes of females (Brouwer, Kawakami, Rojahn, & Postmes, 1997; Postmes & Spears, 2002).

Third, the intergroup dimension affects the processes of social construction and structuration (Postmes et al., in preparation), giving them a sense of predictability which is sorely lacking in the social determinist tradition. When considering the processes by which a group forms a social identity, a group derives its purposes to a certain degree from implicit and explicit comparisons with relevant outgroups (Oakes et al., 1994; Turner et al., 1987), and from interactions with that outgroup in an ongoing intergroup dynamic (Drury & Reicher, 2000; Reicher, 1996). More specifically, the social construction of a group normative position is likely to produce a consensus which captures the prevailing sentiment within the group *while at the same time seeking to contrast itself from relevant outgroups* (Haslam et al., 1998; Turner, 1991).

To put this more plainly, we "construct" or "structure" our group to be about that which defines us best in comparison to relevant outgroups. Postmes, Spears and Lea (2002) sought to demonstrate this in two studies of intergroup interaction via the Internet. One study examined interaction between groups in England and the Netherlands over several weeks. These groups had online discussions on several political topics. Half the groups conducted these discussions anonymously, which is known to have a depersonalizing effect on perceptions of self and other in- and outgroup members (Lea, Spears, & de Groot, 2001; Sassenberg & Postmes, 2002). In half the groups, in contrast, members were identifiable and individuated.

When group members were individuated, intergroup divisions did not emerge, despite the fact that the topics could give rise to differences of opinion. As can be seen in Figure 2, when group members were individuated during the discussion, they converged on a common perspective over time. When group members were depersonalized, however, the subgroups polarized such that they came to occupy distinct positions. Crucially, these normative positions were occupied right from the start of the intergroup discussions (in week 2), and little change over time occurred from that moment on. Thus, when personal identities were less salient within the context of the interaction, the normal processes of construction of a normative position were disrupted, and stereotypic intergroup divisions occurred right from the start.

Such convergence processes do not *require* the explicit salience of the intergroup frame, however. In one study we examined the communications of students who participated in a statistics course (Postmes et al., 2000). In addition to their regular classes, they could

participate in an online statistics tutorial, which let them send e-mails to the course instructor. As it transpired, participants also used this facility to send each other e-mails, and these messages were subsequently analyzed by us. We analyzed the content of messages, in an attempt to chart the emergence of social norms. Using network analysis, we identified groups of students. Results showed that over time each group converged in both content (i.e., their use of humor) and stylistic form (i.e., punctuation and capitalization) of their messages, but group communication also became distinctive in that the aspects of communication that were accentuated were those which distinguished each group relative to the others. Thus, each group effectively displayed a form of group polarization that served to develop a particular identity as a group in an *implicit comparison* with the wider group context.

A similar process can be seen in Mitra's (1997) analysis of the discussion group "soc.culture.indian," where Indian immigrants define their identities as Indians in opposition to other Indian subcultures, rather than defining themselves as members of a collective and common Indian diaspora. Mitra writes that, "the large range of discussions about the merits of Hinduism, the problems with Pakistan, and the support or criticism of the newly emerging Hindu party in India all become manifestions and concretizations of the fundamental contradictions between the different social, cultural, and political blocs that make up post-Independence India." Furthermore, this polarization is accomplished "in languages and styles that are often bigoted, suggestive of violence, and sometimes low-level harangues" (p. 71).

In sum, we have proposed an alternative approach which seeks to integrate aspects of technological and social determinist theories. It seeks to overcome the limitations of technological determinism by considering the social implications of communication technology at individual as well as social levels of identity. It has many things in common with social determinist theories, but seeks to define the "social context" which shapes intragroup processes by taking into account the role of relevant outgroups. It is in the intergroup dynamic that group behavior acquires its purpose and direction, and is therefore crucial to understanding the processes of structuration and construction.

*Technology's social effects: Transcending levels of analysis*

To conclude, traditional theories of computer-mediated communication have tended to ignore intergroup relations, in favor of interpersonal and group effects. Parallel to this, intergroup effects of the Internet have been seriously understudied. Ironically, we argue, it is the neglect of the intergroup dimension of the Internet which has rendered the analysis of its social effects on interpersonal relations and within groups powerless. It is by appreciating the intergroup dimension of our social life that we see the conditions where individuals

internalize the group into the self. This internalized social identity ultimately helps us resolve the false dualism of agency/structure.

Despite the critique, however, both technological and social determinism have made clear contributions. Technological determinism acknowledges that the medium does have an impact, and that technology is not neutral. Indeed, the characteristics of media should *a priori* assume a central role in our theories about technology's consequences. Social determinism's prime contribution has been to show that social norms (or culture or structure) play a key role in shaping the individual's medium usage. In addition to individual cognition and medium characteristics, the community of users cannot be ignored.

However, each of these approaches is too much anchored in one specific level of analysis to be versatile enough to avoid reducing technological effects to causes at an individual, interpersonal, social, or technological level. In order to achieve this, we need to develop an approach that tries to avoid falling into any one of the four quadrants of Figure 1 — a more interactionist meta-theory. The final sections of this paper can be read as our attempt to provide such a starting point with the SIDE model. This model emphasizes that the uses and effects of the Internet are co-determined by technological features and social factors (identities, social relations and social practices) rather than being (ultimately) reducible to either.

From this approach, and on the basis of the research it inspired, we may come to a tentative conclusion about the implications of the Internet for intergroup relations. Although it is undoubted that the Internet produces a marked increase in contact opportunities, it remains to be seen whether this will lead to noticeable improvements in intergroup contact. The research conducted so far suggests that the effects of this contact are moderated by the conditions under which it takes place—technology is not neutral. Importantly, in cases where intergroup divisions are marked and salient, and where individual users are rendered anonymous and depersonalized, contact is likely to increase intergroup divides rather than bridge them for reasons both strategic and cognitive. People need social structures, and they re-create and create them in the virtual world even if this results in intergroup conflict. It is perhaps for this reason that, despite the apparent individualism of CMC, the Internet remains a most social and political space.

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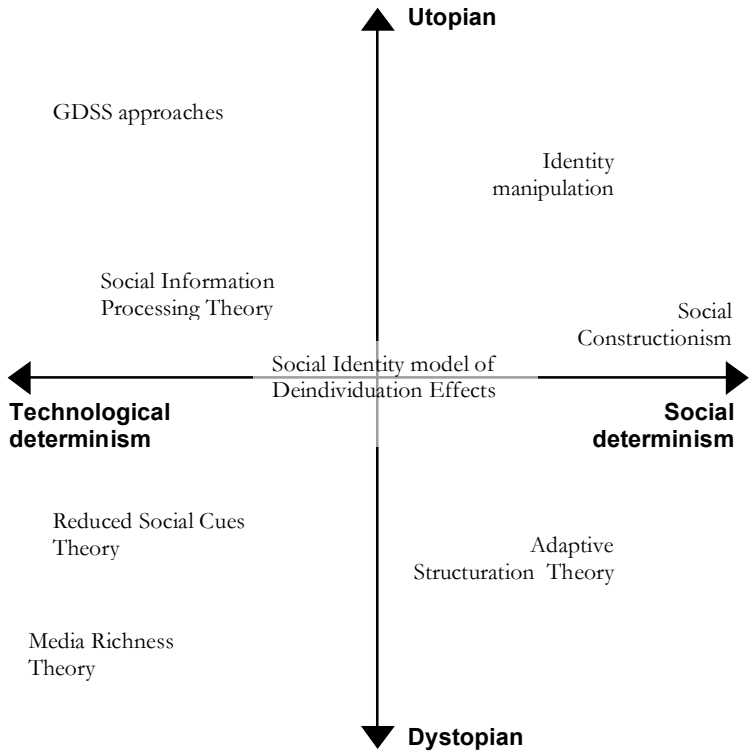
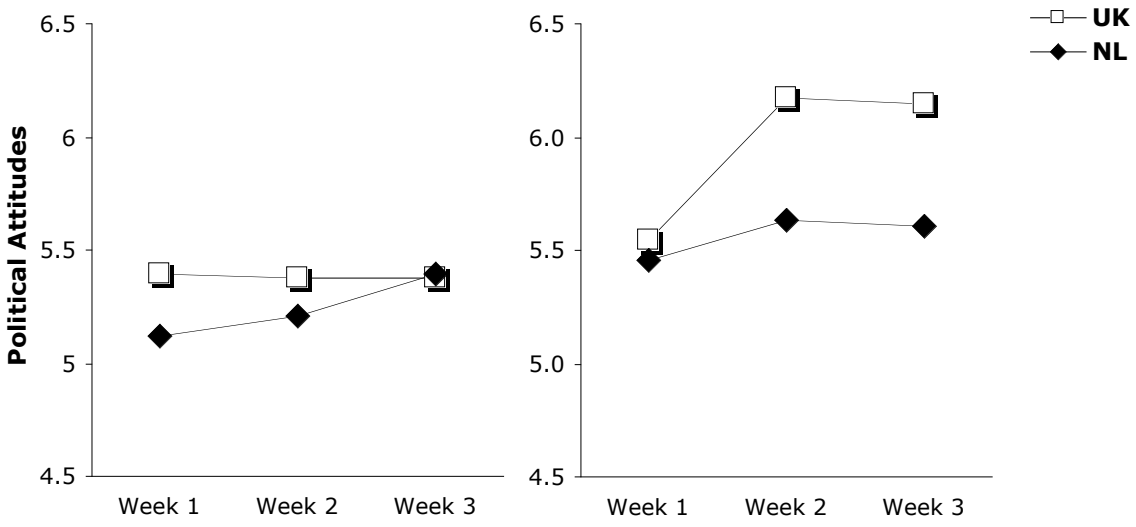
Figure captions

*Figure 1.* A taxonomy of theories about the social effects of communication technology

*Figure 2.* Attitude polarization occurring in international groups during longitudinal discussions over the Internet by conditions of individuation or depersonalization


Utopian
GDSS approaches
Identity manipulation
Social Information Processing Theory
Social Constructionism
Social Identity model of Deindividuation Effects
Technological determinism
Social determinism
Reduced Social Cues Theory
Adaptive Structuration Theory
Media Richness Theory
Dystopian




**Individuated Groups** **Depersonalized Groups**